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Clinical Image

Ambulatory Monitoring of Blood Pressure in Occupational Hypertension

Clinical Image

Stress is considered to have a strong impact on changes in blood pressure through overproduction of catecholamines during working hours [1,2].

We are presenting the graphical behavior of blood pressure of two patients. In both cases hypertension is present exclusively during working hours. The first graphic correspond to a 39 year old nurse working 7 hours (Figure 1) and the second one, to a 46 year old

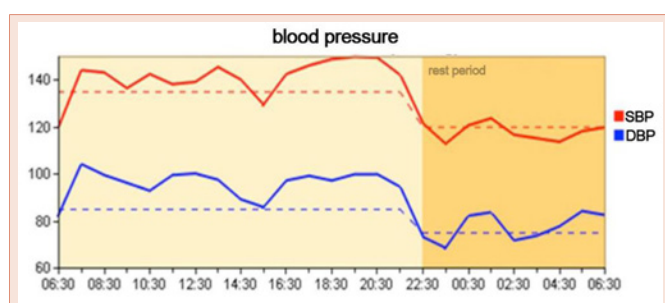


Figure 1: The graphic shows the presence of hypertension only during the 7 hours period the patient was working (from 8:00 to 15:00 pm).

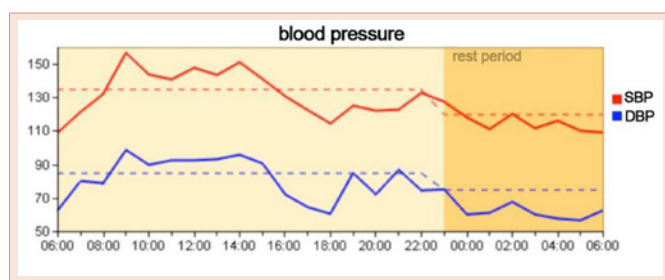


Figure 2: The graphic shows the presence of hypertension during a long working day (8:00 am-9:00 pm) with only a slightly decrease at lunch time and nap time.

engineer working from 8:00 am to 22:00 pm. In the second case, this period also included a two hour-lunch break and nap break.

In the second case, blood pressure remained high during working hours and only went down during lunch time and nap time (Figure 2). Both patients display intellectual work.

This pathophysiological situation known as masked hypertension [3] and which seems to increase during periods of economic crisis, is called Occupational Hypertension and correlates to job stress [4].

Blood pressure monitoring was assessed using Cardiorisc Project [5], a protocol elaborated by the Spanish Society of Hypertension. Even low percentages of blood pressure levels when monitoring, are considered to be normal owing to the wide variability of blood pressure, it is not normal that all readings are high during working hours as shown in both graphics.

Normal blood pressure values are:

1. At consultation: <140/90 mmHg
2. Blood pressure ambulatory monitoring: Average \leq 130/80 mmHg; waking \leq 135/85 mmHg
3. During sleep: \leq 120/75 mm/Hg.

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5. www.cardiorisc.com.

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